

New research reveals unique monogamous behaviour in sparrows

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Geography might reveal the answer to why some species vary in promiscuity, according to new research by Queen's Professor Fran Bonier (Biology). She discovered sparrows are more promiscuous at higher latitudes and are less promiscuous at higher elevations.

The evidence suggests sparrows need more help raising their young at [higher elevations](#) so therefore are less promiscuous.

"A father is more likely to provide high quality parental care to his own offspring so if a female needs help from her mate raising young at higher elevations, one way she can increase the amount of care he will provide to her offspring is by not cheating on him," says Dr. Bonier. "If he knows all the kids in the nest are likely his own genetic young, he might be more likely to provide care, such as helping to feed the offspring, defending the nest and other parental behaviours."

A lot of researchers think high latitude and high elevation habitats are similar and should produce similar adaptations in various species, but this work suggests that isn't always true. Dr. Bonier's sparrow research shows that [high latitudes](#) and high elevations can lead to very different behaviors.

The research, completed by Dr. Bonier, Cas Eikenaar (Institute of Avian Research, Wilhelmshaven, Germany), Paul Martin (Queen's University) and Ignacio Moore (Virginia Tech, USA), adds to the general understanding of the tension between parental care and mating strategies.

Promiscuity in many species is the norm, as increasing the number of mates can improve an individual's fitness, yet monogamy might be the best strategy when the need for [parental involvement](#) in the care of [offspring](#) is high.

Dr. Bonier's research appeared in the latest edition of the *American Naturalist*.

Provided by Queen's University

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